REMARKS

In the Office Action, claims 1-75 were rejected. Reconsideration and allowance of all pending claims are requested in view of the arguments summarized below.

Rebuttal of Examiner's Response to Arguments

In the Office Action, Examiner stated that the features upon which Applicants rely (i.e., analysis software executable on a personal computer of a patient and downloading medical images of the patient produced by the imaging apparatus to the personal computer of the patient) are not recited in the rejected claims.

Further, the Examiner stated that Iliff clearly teaches that a script accessing a patient condition can be run from a server or the script can reside on the user computer, which is the patient's computer 116. The Examiner cited column 6, line 59-67 and pointed to FIG. 1 of Iliff. The Examiner also stated that the disease management software can be reasonably interpreted as the recited analysis software since the disease management software does analysis automatically based on several factors such as reviewing and adjusting therapy levels based on dialog with the patient.

All the independent claims do recite the above stated features

Applicants respectfully submit that independent claims 1, 19, 40, 53, 54 and 57 do recite, in generally similar language, *analysis software executable on a personal computer of a patient* and *downloading medical images of the patient produced by the imaging apparatus to the personal computer of the patient.* The independent claims 1, 19, 40, 53, 54 and 57 have been reproduced below with emphasis added to the features recited above for the Examiner's reference:

> 1. A method for at least one of detecting, quantifying, staging, reporting, or tracking of a disease, said method comprising:

providing analysis software configured to at least one of detect, quantify, stage, report, or track a disease of a patient, said analysis software executable on a personal computer of a patient;

imaging the patient with a medical imaging apparatus;

downloading medical images of the patient produced by the imaging apparatus to the personal computer of the patient; and

repeating said imaging and downloading a plurality of times at intervals selected to provide said analysis software with sufficient images to at least one of detect, quantify, stage, report, or track the disease in the patient by computer analysis of the images via the **analysis software executable on the personal computer of the patient**. (Emphasis added.)

19. A network for at least one of detecting, quantifying, staging, reporting, or tracking of a disease, said network comprising:

analysis software executable on personal computers of patients, said software including instructions configured to instruct the personal computer to at least one of detect, quantify, stage, report, or track a disease by computer analysis of images of a patient; and

an interface for **transferring scanned images of a patient to a personal computer of the imaged patient**. (Emphasis added.)

40. A computing device configured to:

download medical images of a patient produced by an imaging apparatus to a computing device of a patient;

analyze said downloaded medical images to at least one of detect, quantify, stage, report, or track a disease in the patient and report analysis results to the patient via an image **analysis software executable on the computing device of the patient**; and

transmit results of said analysis to a remote database. (Emphasis added.)

53. A method for performing a drug treatment trial comprising:

providing analysis software configured to at least one of detect, quantify, stage, report, or track a disease of a patient, said analysis software executable on personal computers of a plurality of patients;

imaging the patients with medical imaging apparatus to produce medical images of the patients;

downloading the medical images of each imaged patient to the personal computer of the imaged patient;

repeating said imaging and downloading a plurality of times at intervals selected to provide said analysis software with sufficient images to at least one of detect, quantify, stage, report, or track the disease in each patient;

analyzing said medical images utilizing the personal computers of each patient to at least one of detect, quantify, stage, report, or track a disease in the patient by computer analysis of the images via the **analysis software executable on the personal computer of the patient**; and

uploading results of the analysis from each patient's personal computer to a database for further analysis and evaluation. (Emphasis added.)

54. A method for tracking a changeable parameter of a person, said method comprising:

imaging the person with an imaging apparatus;

downloading images of the person produced by the imaging apparatus to a personal computer of the person; and

repeating said imaging and downloading a plurality of times at intervals selected to provide an analysis software with sufficient images to track said at least one changeable parameter by computer analysis of the images via the **analysis software executable on the personal computer of the patient**. (Emphasis added.)

57. A method for at least one of detecting, quantifying, staging, reporting, or tracking of a disease, said method comprising:

imaging a patient with a medical imaging apparatus;

downloading medical images of the patient produced by the imaging apparatus to a personal computer of the patient; and

repeating said imaging and downloading a plurality of times at intervals selected to provide an analysis software with sufficient images to at least one of detect, quantify, stage, report, or track the disease in the patient by computer analysis of the images via the **analysis software executable on the personal computer of the patient**. (Emphasis added.)

The prior art references do not teach any image analysis software

Applicants respectfully submit that Iliff does not teach, disclose, or suggest *any image analysis software* executable on a personal computer of a patient as argued by the Examiner. A passage from Iliff is reproduced herein below:

Referring to FIG. 1, a computerized knowledge-based medical management system 100 will be described. A disease management module (DMM) 80 and several other high-level service modules 82 perform automated medical services for the users of the medical management system 100. The service modules 82 may include Diagnosis, Treatment

> Table, Automated Demand Management, Audio/Visual/Image Library, and Author Access. ***The DMM 80 handles tasks associated with Disease Management (DM); its major goals are to promote patient well-being, to educate patients, and to reduce costly medical intervention.*** The user may be a patient 114 or an assistant for a patient. Throughout this document, the words user and patient are used interchangeably. However, it will be understood that the user may be acting as a proxy for the patient. If this is the case, the user is registered as an assistant for the patient. Appropriate registration and login processes, described hereinbelow, are utilized by the system 100 for either the patient or the assistant. See, column 5, lines 49-67. (Emphasis added.)
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> Referring to FIG. 2b, a diagram of one embodiment of a server computer 110 shows several possible interconnections to the network. ***To "play" a script, a special program called a Script Engine is used, which reads a medical diagnostic script file and uses its codes to perform interview actions, such as outputting a question to a patient and inputting an answer. The scripts may also collect the answers from the patient, evaluate the answers, issue a diagnosis, and update the patient's medical record. The script engine may also reside in the user computer 116 (FIG. 2a).*** The script engine may be stored on the hard drive or a CD-ROM, and is loaded into the main memory or a cache for execution. See, columns 6, line 49-column 7, line 67. (Emphasis added.)

Clearly, the "disease management module" is not the same as the image analysis software as recited in the present claims. Applicants respectfully assert that the disease management module disclosed in Iliff is only configured to promote patient well-being and educate patients, thereby reducing costly medical intervention. The disease management module may monitor the progression of disease by querying the patient and storing the patient's responses. Additionally, the disease management module may store diagnosis results and treatment history to issue advice to the patient from time to time. However, it does not appear that the Iliff software performs any *image analysis*. While, the disease management module disclosed in Iliff is configured to access laboratory test database or imaging modality database to obtain treatment information or the diagnosis, clearly, this is not the same as downloading the images of a patient from the imaging apparatus database to the personal computer of the patient or analyzing such images. Further, Applicants

respectfully submit that even though some script may reside on the patient's computer, there is no suggestion at all in Iliff that these scripts can do or are even capable of performing any image analysis. The burden lies on the Examiner to prove that the prior art references teach, disclose or suggest the recitation of the claims.

Rejections Under 35 U.S.C. §103

Claims 40-44, 52, 54, 57-61, 74-77, 79, 81-83 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaufman et al., US Patent No. 6,901,277 (hereinafter "Kaufman") in view of Iliff et al., U.S. Patent No. 6,234,964 (hereinafter "Iliff"). Claims 45-47, 49-51, 62-64, 69-73, 84-86 and 91-97 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaufman in view of Iliff further in view of Kotmel et.al., U.S. Patent Application No. 2003/0055331 (hereinafter "Kotmel"). Claims 65-68 and 87-90 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaufman in view of Iliff, further in view of Kotmel, further in view of Vinning, U.S. Patent No. 6,083,162 ((hereinafter "Vinning"). Claims 55-56, 79 and 80 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaufman. Claims 1-39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaufman in view of Iliff. Claim 53 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaufman in view of Iliff further in view of Chalana et al., U.S. Patent No. 7,158,692 (hereinafter "Chalana").

Applicants respectfully submit that claims 76-98 were cancelled in the previous response and therefore request the Examiner to withdraw the rejections against these claims.

Each of the independent claims 1, 19, 40, 53, 54 and 57 recites, in generally similar language, *analysis of images via an analysis software executable on a personal computer of a patient*. Applicants respectfully submit that Kaufmann, Iliff and Chalana, alone or in combination, do not teach, suggest or disclose an image analysis software executable on a personal computer of a patient as recited in the claims.

Kaufmann discloses systems, software code, graphical user interfaces, and methods for displaying and analyzing lung CT or MRI image datasets of a patient. The lung datasets can be analyzed to map, track, and analyze the nodules in a series of lung slice images or image scans, as well as to record other lung and chest abnormalities. However, Kaufmann fails to disclose *analysis software executable on a personal computer of a patient and downloading medical images of the patient produced by the imaging apparatus to the personal computer of the patient.* The Examiner acknowledged this. *See*, Office Action, page 4. However, the Examiner argued that Iliff discloses a disease management method that includes analysis software executable on a personal computer of a patient. On this issue, the Examiner indicated that the disease management module of Iliff can be executed on a patient computer. *See*, Iliff, column 1, lines 12-14; *see also*, column 6, lines 59-67 and column 13, lines 12-27. The Examiner further stated that Iliff discloses downloading medical images of the patient produced by an imaging apparatus to the personal computer of the patient, and indicated that patient can access a database of different imaging modalities. *See*, Iliff, column 8, lines 23-26.

As discussed above, Iliff fails to teach, disclose or suggest such analysis software on a patient computer. Additionally, Chalana fails to obviate the deficiencies in the teachings of Kaufman or Iliff. The Examiner did not argue that it does so. In fact, the Examiner in the Response to Argument acknowledged that Chalana was not relied upon for the above limitation.

At least because Kaufmann, Iliff and Chalana, alone or in combination, fail to teach, disclose or suggest software executable on a personal computer of a patient for analyzing images of the patient as recited in the independent claims, the references cannot support a *prima facie* case of obviousness of claims 1, 19, 40, 53, 54 and 57. Claims 2-18, 20-39, 41-52, 55-56, and 58-75 depend directly or indirectly from claims 1, 19, 40, 54 and 57 respectively. Accordingly, Applicants submit that claims 2-18, 20-39, 41-52, 55-56, and 58-75 are allowable by virtue of their dependency from an allowable base claim.

Applicants also submit that the dependent claims are further allowable by virtue of the subject matter they separately recite.

Thus, it is respectfully requested that the rejections of claims 1-75 under 35 U.S.C. § 103 (a) be withdrawn.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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